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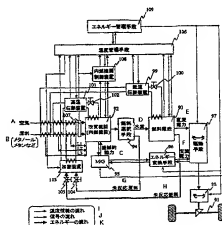
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(54) Title: FUEL CELL SYSTEM AND VEHICLE USING THE SYSTEM

(54) 発明の名称 燃料電池システムおよびそれを用いた車両



- 92 ... MODIFIED ENGINE (INTERNAL COMBUSTION ENGINE)
- 93 ... FUEL CELL
- 94 ... FUEL REACTION HEAT
- 95 ... BRIDGE CONNECTION MEANS
- 96 ... BRIDGE DRIVE MEANS
- 97 ... BRIDGE
- 98 ... LOW TEMPERATURE HEAT TRANSMISSION DEVICE
- 99 ... HIGH TEMPERATURE HEAT TRANSMISSION DEVICE
- 100 ... HEATING DEVICE
- 101 ... TEMPERATURE CONTROL MEANS
- 102 ... EXTERNAL COMBUSTION ENGINE CONTROL DEVICE
- 103 ... ENERGY CONTROL MEANS
- A ... AIR
- B ... MATERIAL (HYDROGEN, METHANE, ETC.)
- C ... MECHANICAL POWER
- D ... HYDROGEN
- E ... DC POWER
- F ... AC POWER
- G ... UNREACTED MATERIAL
- H ... UNREACTED FUEL
- I ... FLOW OF TEMPERATURE INFORMATION
- J ... FLOW OF SIGNAL
- K ... FLOW OF ENERGY

(57) Abstract

A fuel cell (93) which generates energy by using reaction product from a modified engine (92) which acts as an internal combustion engine for a modifier and power generation and has a piston performing a compression work and a plurality of reaction chambers, wherein the internal temperature of the reaction chambers provided in the modified engine (92) is raised to above the self igniting temperature of material in the atmosphere in the material reaction chambers by using heat from a plurality of heat sources and a plurality of unreacted fuel for heating the material supplied to the modified engine (92) in a fuel cell system having the modified engine (92), a partial oxidation reaction enabling both mechanical power and hydrogen to be produced is made, and the mechanical power produced controls the heat balance of the system so as to increase a modifying efficiency by being used for a steam modifying reaction as a heat absorbing reaction generating much hydrogen in the other reaction chamber.